Materials Computation Center, University of Illinois

Duane Johnson and Richard Martin, NSF DMR-9976550

Conference on Understanding Complex Systems

from co-PIs: Alfred Hubler, Duane D. Johnson, Karin Dahmen, Robert Clegg

Outreach

Each year, the Center for Complex Systems Research and Materials Computation Center host a multi-disciplinary conference entitled *Understanding Complex Systems*. The three-day event attracts 150 participants to hear 45 speakers from across the nation and from a variety of fields. The website is the #1 Google listing under this keyword search.

Education

Prior to the conference, lectures, demonstrations, labs, and hands-on programming teach researchers and students the complex systems basics. All educational levels, from elementary to graduate school, benefit from the demos, which are featured in a freshman honors seminar (Physics 199 BCS) and two graduate courses (Physics 420 & 421). The project has produced two doctoral theses (2004). The research has also supported a number of undergraduate student projects.

Conference material (including audio of lectures) are available at http://www.how-why.com/ucs/

Researchers and students attend the *Understanding Complex Systems* tutorials (2003).

Awards and recognition

Alfred Hubler presented this work at the NSF workshop *Research Experience for Teachers*, created the undergraduate course “Behavior of Complex Systems”, and is cited as a UIUC excellent teacher. Three graduate students have won UIUC Anderson teaching awards. Undergraduate advisee David Smyth won one of 11 Churchill Scholarships.